

APPENDIX:

The Appendix includes the following item:

- Declaration of Shinji KOUBE



PATENT
8007-1091

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Shinji KOUBE et al.

Conf. 2839

Application No. 10/534,381

Group 1712

Filed May 9, 2005

Examiner A. Toscano

POLYESTER PLASTICIZER AND CHLORINE-CONTAINING
RESIN COMPOSITION

DECLARATION UNDER RULE 132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Sir:

I, Shinji KOUBE, declare as follows:

I am the same Shinji KOUBE named as an inventor in the above-identified patent application. My relevant background and experience are set forth on the attached c.v. I make this declaration in support of the present application, and to provide evidence in rebuttal to the contentions set forth in the Official Action mailed February 21, 2007, that one skilled in the art would have found claims 1-4 obvious in view of the BIESIADA and HAYASHI publications.

I declare that the claimed invention would not have been obvious in view of these publications and that the claimed invention exhibits unexpected results to provide further evidence as to the non-obviousness of the claimed invention. When using both 2-methyl-1,3-propanediol and 3-methyl-1,5-

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pentanediol as a diol component, wherein the amount of the latter is larger than that recited in claim 1, the polyester plasticizer No. 6 obtained imparts to a polyvinyl chloride resin an inferior oil resistance than that brought about by the claimed invention. This is illustrated in Example 1. In addition, I have completed the following results:

Comparative Example 3

In a reaction flask were put 0.2 molar parts of 2-methyl-1,3-propanediol, 2.7 molar parts of 3-methyl-1,5-pentanediol, 3.0 molar parts of adipic acid, 1.1 molar parts of 2-ethylhexanol, and 0.0005 molar parts of titanium tetraisopropoxide and allowed to react at 220°C in a nitrogen stream for 8 hours while removing produced water by evaporation and then under a pressure of 4000 Pa at 220°C for 1 hour to give polyester plasticizer No. 6 having an average molecular weight of 1800 and a viscosity of 3000 mPa·s.

A sheet was prepared in the same manner as in Example 1 described in the present specification, except that polyester plasticizer No. 6 was used as the polyester plasticizer. The sheet was evaluated by a tensile test and an oil resistance test in the same manner as in Example 1 described in the present specification. The test results obtained are shown as follows:

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(a) Tensile test

100% Modulus: 11.3 MPa

Elongation: 375%

Tensile Strength: 22.6 MPa

(b) Oil Resistance Test

Elongation Retension: 88%

Tensile Strength Retention: 89%.

Thus, in view of Comparative Example 1 and Comparative Example 3 described above, applicants believe that the claimed invention exhibits unexpected results that provides even further evidence that the claimed invention would not have been obvious in view of the BIESIADA and HAYASHI publications.

The undersigned declare further that all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Shinya Kurobe

Jun 6, 2007
Date